California Department of Health and Human Services

MUMPS Case and Outbreak 'Quicksheet'

To be used as a checklist for determining mumps cases and as a guide to outbreak control.

Infectious agent: The mumps virus is a paramyxovirus in the same group as influenza.
Mode of transmission: Airborne transmission or through direct contact with infected droplets or saliva.
Incubation period: Generally 16-18 days post exposure. The maximum period is from 14-25 days post exposure.
Period of Communicability: The infectious period is considered to be from 3 days before active disease symptoms (parotitis) to 9 days after active disease.

CDC CASE DEFINITION and CASE CLASSIFICATION *(for purposes of public health reporting)*

Clinical Case Definition: An illness lasting 2 or more days, with:
☐ acute onset of swelling of the parotid or salivary glands
☐ without any other apparent cause (as reported by a physician).
Case Classification: Confirmed - a case that meets the ☐ clinical case definition and is ☐ epidemiologically linked to a confirmed case, or that is ☐ physician or laboratory confirmed (see below) .
Probable - meets the ☐ clinical case definition but has no or noncontributory serologic or virologic testing, and is not epidemiologically linked to confirmed or probable case.

CLINICAL FEATURES

Up to 20% of persons infected with mumps are asymptomatic. An additional 40%-50% may have only non-specific or mild respiratory symptoms.

Incubation
Exposure to prodrome is 14-18 days with a range of 14-25 days

Prodrome
Prodromal symptoms are nonspecific
Include myalgia, anorexia, malaise, headache and low-grade fever
Up to 33% of infected persons have minimal or no manifestation of disease

Parotitis
A swelling of the parotid glands, may be noted as earache, tenderness on touching the angle of the jaw, occurring 1-2 days after prodrome.
unilateral or bilateral, affecting any combination or single or multiple salivary glands
occurs in 30-40% of infected persons
symptoms tend to decrease after one week, and are usually gone by 10 days

LABORATORY TESTING AND CONFIRMATION

A laboratory confirmed case does not need to meet the clinical case definition.
Laboratory confirmation is determined by a 4-fold rise of mumps antibody level by standard serologic assay:
-Acute and convalescent blood specimen, or a positive serological test for mumps IgM antibody, which is not widely available.
Mumps virus can also be isolated from throat washings, urine, or spinal fluid.

RECOMMENDED TREATMENT AND CHEMOPROPHYLAXIS

Treatment of mumps is supportive. Although mumps vaccine is not thought to be effective in preventing infection of exposed persons, it can be given, as immunization will protect against subsequent exposure.

MUMPS IMMUNITY

Proof of mumps immunity is determined by meeting one of the following criteria:
☐1. Documentation of having received one dose of live virus mumps vaccine on or after 12 months of age.
☐2. Serological evidence of mumps antibodies.
☐3. Diagnosis of having had mumps disease as documented by a physician.

(OVER)

Confirmed mumps cases are reportable by the ☐ Confidential Morbidity Report (CMR) but not a mumps-specific case report form.
Reporting of communicable disease is **mandated** under the California Code of Regulations (Title 17, CCR 2500)

Investigation process:

1. Upon notification of a mumps suspect, interview the mumps case to:
☐ confirm patient information (**at a minimum**: name, age, address and type of setting exposed)
☐ confirm clinical signs and symptoms
☐ collect all pertinent medical information (recent medications, physician information, hospitalization, etc.)
☐ determine patient's immune status (history of **mumps** vaccination)
☐ determine the possible source of exposure
    ☐ contact with a person who is suspected of having **mumps** disease
    ☐ travel or gathering
    ☐ medical facility
☐ list all household contacts and determine those who do not have **mumps** immunity.

2. Upon confirmation of the clinical diagnosis as possible mumps, ☐ arrange for serological testing (paired acute and convalescent sera)

The following time line depicts the clinical course of mumps and may be useful in the investigation process:

Exposure and Incubation Period (14-25 days)			***Parotitis (~7 days)***	***Communicability***
weeks: -3	**-2**	**-1**	**ONSET**	**1 week to 10 days**
Onset of parotitis minus 18 days is probable exposure **DATE:**		Onset of parotitis minus 3 days is probable start of infectious period **DATE:** **Prodrome:** (non-specific) myalgia, anorexia, malaise, headache, low-grade fever	**DATE:** 1-2 days after prodrome occurs in 30-40% of cases	Onset of parotitis plus 9 days is probable end of infectious period **DATE:**

MUMPS OUTBREAK CONTROL STRATEGY: Schools (Pre-K through College)

The following course of action is recommended to prevent the spread of mumps disease. The person with mumps should be excluded until 9 days after the onset of parotid swelling.

Confirmed single case:
☐ Surveillance of contacts for one incubation period (14-25 days).

Confirmed outbreak (2+ cases within 4 wks time) in school/child care facility/college with potential for spread:
☐ Consider excluding known or presumed susceptibles born in 1957 or later for twenty-six days after the onset of parotitis in the last person diagnosed with mumps in the school.
☐ Immunize excluded persons greater than or equal to 12 months of age.
☐ Excluded persons can be readmitted immediately after vaccination.